

201-15060

Anh Nguyen

01/21/04 11:04 AM

To: NCIC HPV@EPA

CC:

Subject: Environmental Defense comments on
2,2-bis[[3-(dodecylthio)-1-oxopropoxy]propane-1,3-diyl bis[3-(dodecylthio)
propionate (CAS# 29598-76-3)

----- Forwarded by Anh Nguyen/DC/USEPA/US on 01/21/2004 11:00 AM -----



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cc: lucierrg@msn.com, kflorini@environmentaldefense.org,
rdenison@environmentaldefense.org

Subject: Environmental Defense comments on
2,2-bis[[3-(dodecylthio)-1-oxopropoxy]propane-1,3-diyl bis[3-(dodecylthio)
propionate (CAS# 29598-76-3)

(Submitted via Internet 1/21/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov,
boswell.karen@epa.gov, chem.rtk@epa.gov, lucierrg@msn.com and
mark_thomson@cromptoncorp.com)

Environmental Defense appreciates this opportunity to submit comments on
the robust summary/test plan for 2,2-bis[[3-(dodecylthio)
-1-oxopropoxy]propane-1,3-diyl bis[3-(dodecylthio) propionate (CAS#
29598-76-3). In the test plan, this chemical is referred to as Propionic
acid,3-(dodecylthio)-, neopentetetrayl ester, which we will abbreviate
herein as PDTNPT.

The test plan and robust summaries for PDTNPT were submitted by Crompton
Corporation. This substance is apparently used as an antioxidant in
polyethylene, polypropylene and engineering thermoplastics. No information
is provided on potential or actual environmental releases, levels in the
environment, concentrations in and releases from consumer products and the
opportunities for worker exposures. While these kinds of data are not
explicitly required by the HPV program, they are helpful in reviewing
submissions.

Available data exist for all SIDS endpoints pertaining to physicochemical
properties, environmental fate and ecotoxicity. However, for mammalian
toxicity endpoints, data are available for only acute toxicity. For this
reason the sponsor proposes to conduct studies on all remaining mammalian
toxicity endpoints. We agree with this proposal and we also agree that a
combined repeat dose/reproductive/developmental study be conducted on
PDTNPT, as this approach will minimize the use of animals in conducting the
necessary toxicity studies. Other comments are as follows:

1. PDTNPT is water-insoluble, which seems to have confounded the ECOSAR
predictions for the aquatic toxicology endpoints. The estimated toxicity
values indicate an unreasonably high level of toxicity based on the
structure of PDTNPT. We therefore suggest that the sponsor consider
conducting a fish toxicity study at the limits of solubility of PDTNPT, and
also on biodegradation products of this substance which are likely more
water-soluble.

2. PDTNPT has little or no acute toxicity in rodents. Therefore, dose
selection for the combined study needs to be given special attention, since

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the highest dose will likely be much lower than the maximum tolerated dose.

Thank you for this opportunity to comment.

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Senior Scientist, Environmental Defense